

SF-3

Subwoofer Filter

Basic Description

The SF-3 subwoofer filter allows the addition of subwoofers to an existing full-range system, offering adjustable low-pass filtering and high-pass subsonic filtering with optional B6 boost and mono-summing. The unit mounts to the rear panel of a two-channel DCA or CX amplifiers to save cost and rack space. The amplifier's DataPort provides the accessory's operating power and receives the output signals, eliminating added external wiring or power transformers.

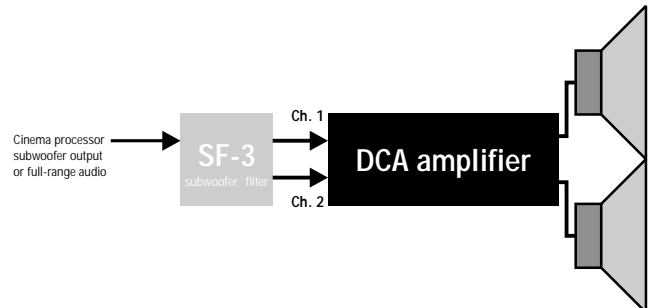
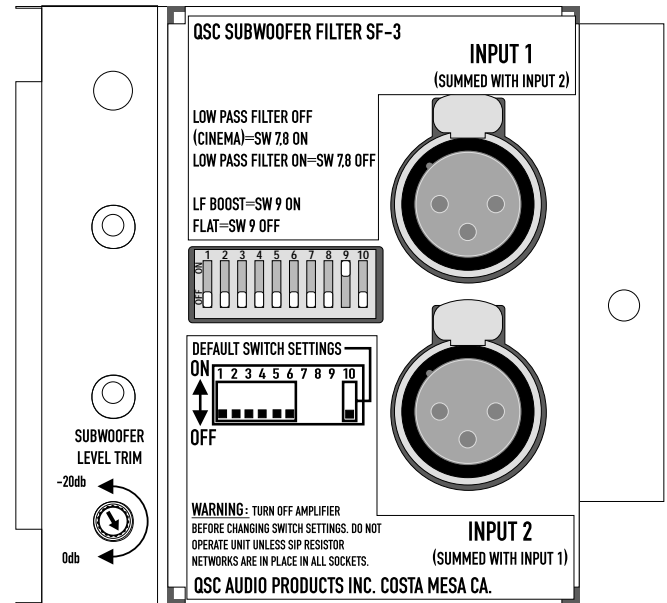
For subwoofer material derived from full-range audio, a 4th-order Linkwitz-Riley low-pass filter lets you set the upper range of the subwoofer band to 80, 150, or 250 Hz. The subsonic filter offers a range of roll-off frequencies from 20 to 50 Hz to protect subwoofers from over excursion, with optional equalization to extend the response of B6 speaker enclosures. A trim control provides 0 to 20 dB of attenuation for matching levels among the various frequency bands. Filter frequencies are programmable via provided SIP resistor networks.

Compatible amplifier models

DCA 1222, DCA 1622, DCA 2422, DCA 3022, and DCA 3422
 CX 302, CX 502, CX 702, CX 902, CX 1102, CX 302V, CX 602V, and CX 1202V

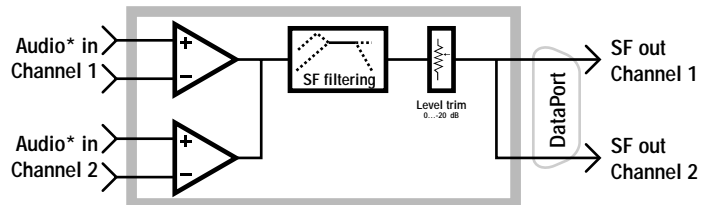
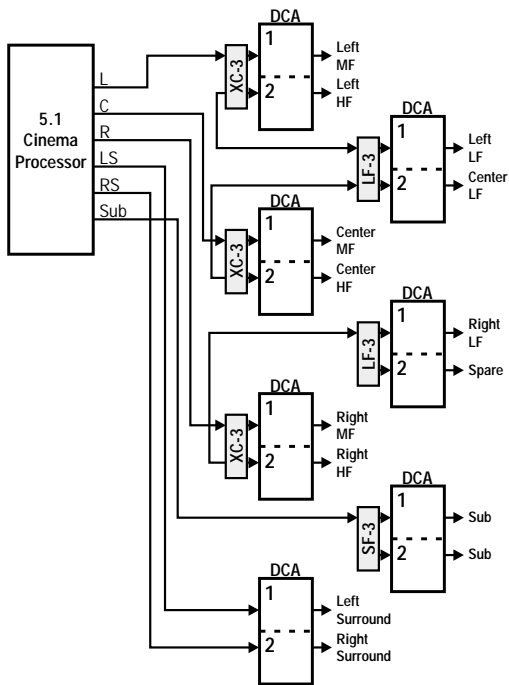
SF-3 Features

- For 2-channel DCA series or CX series amps
- Designed for professional cinema applications or installed sound systems
- Mounts directly to back of amplifier; interfaces with amplifier via DataPort
- Adds low-pass and subsonic filtering functions without requiring additional rack space, cabling, or AC outlets
- Precision components for accurate performance
- Active balanced XLR inputs
- Selectable subsonic frequencies from 20 Hz to 50 Hz
- Defeatable 24 dB/octave low-pass filter for deriving subwoofer program from mono or stereo full-range audio



1675 MacArthur Boulevard
 Costa Mesa, CA 92626
 Ph: 800/854-4079 or 714/957-7100
 Fax: 714/754-6174
www.qscaudio.com

SF-3 SPECIFICATIONS	SF-3
GENERAL INFORMATION	
Supply Voltage (no load)	+15 volts provided by amplifier, -15 volts provided by internal charge-pump converter.
Supply Current Requirements	Less than 50 mA
Operating Temperature	0–70° C
Input type, each channel	Electronically balanced differential
Input impedance	22.6 k Ω balanced; 11.3 k Ω unbalanced
CONTROLS (each channel)	
Subsonic filter frequency	Selectable using SIP resistor networks: 20, 25, 30, 35, 40 & 50 Hz
Subsonic filter Q	Selectable using DIP switch: 0.707 (Butterworth) or 2 (6 dB peak)
Low-pass filter	Bypass or engage using DIP switch
Low-pass filter frequency	Selectable using SIP resistor networks: 80, 150 & 250 Hz
Gain adjustment	Trim potentiometer 0–20 dB attenuation
CONNECTORS	
Input	Two female 3-pin XLR
Output to amplifier	Male HD-15 connector to amplifier DataPort
Accessory's operating power	Male HD-15 connector to amplifier DataPort
GENERAL AUDIO	
Input stage type	Electronically balanced differential; both inputs summed
Output stage type	Balanced
Dynamic range	118 dB nominal
Total harmonic distortion	Less than 0.1%
Signal to noise ratio	Min. 103 dB
Subsonic filter type	2nd-order, 12 dB/octave
Low-pass filter type	4th-order Linkwitz-Riley alignment; -6 dB at crossover frequency
Low-pass roll-off slope	24 dB/octave rolloff



*Either full-range (for derived subwoofer program) or discrete subwoofer program

